

## Vaginitis

Vaginitis is an inflammation of a woman's *vagina*. It is one of the most common reasons why women see their health care providers. Vaginitis affects women of all ages. There are many possible causes of vaginitis, and the type of treatment depends on the cause.

This pamphlet explains

- why vaginitis occurs
- symptoms of vaginitis
- diagnosis and treatment
- how to reduce your risk

### Why Vaginitis Occurs

A small amount of clear or cloudy white fluid normally passes from a woman's vagina daily. This discharge keeps the tissue moist and healthy. It is normal for the amount and color of the vaginal discharge to change throughout the menstrual cycle.

The vagina also contains many organisms, such as bacteria and yeast, that are important to its normal function. A change in the normal balance of either yeast or bacteria can result in vaginitis. Listed are some factors that can upset the normal balance of the vagina:

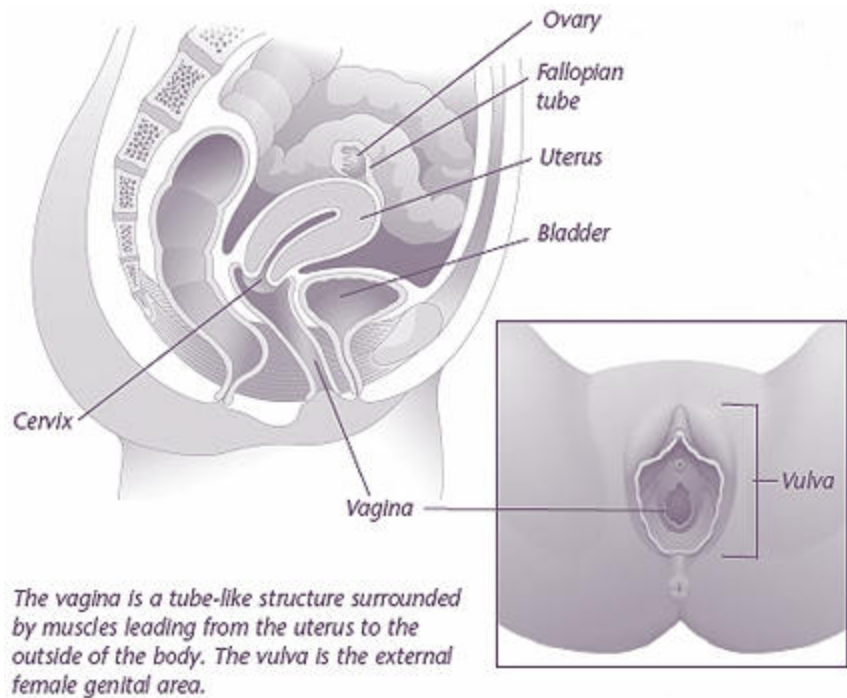
- ***Antibiotics***
- Changes in ***hormone*** levels due to pregnancy, breastfeeding, or ***menopause***
- Douching
- ***Spermicides***
- Sexual intercourse
- Infection

If a change in the normal balance occurs, the lining of the vagina may become inflamed. Vaginitis may cause itching, burning, a bad odor, or a large amount of discharge.

## Diagnosis and Treatment

To diagnose vaginitis, your health care provider will take a sample of the discharge from your vagina. Several tests may be done. Some tests can be done in the health care provider's office, and results are available right away. For others, the sample must be sent to a lab, and results are ready in a few days.

To ensure the results of the tests are accurate, do not use any vaginal medications for at least 3 days before you see your health care provider. You also should not douche, have sexual intercourse, or use spermicides before your visit.



Treatment depends on the cause of the vaginitis. Treatment may be a pill or a cream or gel that is inserted into the vagina. It is important to follow your health care provider's instructions exactly, even if the discharge or other symptoms go away before you finish the medication. Even though the symptoms disappear, the infection could still be present. Stopping the treatment early may cause symptoms to return. If symptoms do not go away after the treatment is finished, or if they recur, see your health care provider. A different treatment may be needed.

## Types of Vaginitis

### *Yeast Infection*

A yeast infection also is known as *candidiasis*. It is one of the most common types of vaginitis.

**Cause.** Yeast infections are caused by a fungus called *Candida*. It normally is found in small numbers in the vagina. However, when the balance of bacteria and yeast in the vagina is altered, the yeast may overgrow and cause symptoms.

Some types of antibiotics increase the risk of a yeast infection. The antibiotics kill normal vaginal bacteria, which keep yeast in check. The yeast can then overgrow. Pregnancy can

increase the risk of yeast infection because of changes in the body's hormone levels. Women with *diabetes mellitus* also are at increased risk.

Overgrowth of yeast can occur if the body's immune system, which protects the body from disease, is not working well. For example, in women infected with *human immunodeficiency virus (HIV)*, yeast infections may be severe. They may not go away, even with treatment, or may recur often. In many cases, the cause of a yeast infection is not known.

**Symptoms.** The most common symptoms of a yeast infection are itching and burning of the area outside the vagina called the *vulva*. The burning may be worse with urination or sex. The vulva may be red and swollen. Some women with yeast infections notice an increase or change in their vaginal discharge. The vaginal discharge may be white, clumpy, and have no odor. Other women do not notice any change in discharge.

**Treatment.** Yeast infections can be treated either by placing medication into the vagina or by taking a pill. In most cases, treatment of male sex partners is not necessary.

Some women try an over-the-counter yeast infection medication when they have symptoms of vaginitis. Over-the-counter treatments are safe and often effective. But many women think that they have a yeast infection when they actually have another problem. In these cases, a medication for a yeast infection will not work. It also may cause a delay in proper diagnosis and treatment of the actual problem.

Even if you have had a yeast infection before, it may be a good idea to call your health care provider before using an over-the-counter medication to treat your symptoms. If this is the first time you have had vaginal symptoms, you should see your health care provider. If you have used an over-the-counter medication and your symptoms do not go away, see your health care provider.

### *Bacterial Vaginosis*

**Cause.** Bacterial vaginosis is caused by an imbalance in the types of normal bacteria that live in the vagina.

### **What You Can Do**

There are a number of things you can do to reduce the risk of getting vaginitis:

- Do not use feminine hygiene sprays or scented deodorant tampons.
- Do not douche. It is better to let the vagina cleanse itself.
- Use plain warm water to clean the vulva. Soaps and detergents can change the normal balance of organisms inside the vagina.
- Thoroughly clean diaphragms, cervical caps, and spermicide applicators after each use.
- Use condoms during sex.
- Check with your health care provider about preventing yeast infections if you are prescribed antibiotics for another type of infection.

**Symptoms.** The main symptom is increased discharge with a strong fishy odor. The odor may be stronger during your menstrual period or after sex. The discharge usually is thin and dark or dull gray, but may have a greenish color. Itching is not common but may be present if there is a lot of discharge.

**Treatment.** Several different antibiotics can be used to treat bacterial vaginosis. They include metronidazole and clindamycin. They can be taken by mouth or inserted into the vagina as a cream or gel. Sexual partners do not need to be treated.

When metronidazole is taken by mouth, it can cause side effects in some patients. These include nausea, vomiting, and darkening of urine. Do not drink alcohol when taking metronidazole. The combination can cause severe nausea and vomiting.

Bacterial vaginosis often recurs. It may require repeated treatment. In some cases, longer treatment for 3–6 months may be needed.

### *Trichomoniasis*

**Cause.** Trichomoniasis is a condition caused by the microscopic parasite *Trichomonas vaginalis*. It is a **sexually transmitted disease (STD)**. Women who have trichomoniasis are at an increased risk of infection with other STDs.

**Symptoms.** Signs of trichomoniasis may include a yellow-gray or green vaginal discharge. The discharge may have a fishy odor. There may be burning, irritation, redness, and swelling of the vulva. Sometimes there is pain during urination.

**Treatment.** Trichomoniasis usually is treated with metronidazole by mouth, either a single dose or a dosage taken over 7 days. A single dose of another drug, called tinidazole, also can be used. Sexual partners must be treated to prevent the infection from recurring. You should not have sexual intercourse until you and your partner have received treatment.

### *Atrophic Vaginitis*

**Cause.** This condition is not caused by an infection but can cause a discharge and vaginal irritation. It may occur any time when female hormone levels are low, such as during breastfeeding and after menopause.

**Symptoms.** Symptoms include dryness, itching, and burning. Other symptoms include abnormal vaginal discharge and pain during sexual intercourse.

**Treatment.** Atrophic vaginitis is treated with **estrogen** that is applied inside the vagina. It is available as a cream, tablet, or ring. A water-soluble lubricant also may be helpful during intercourse.

### **Finally...**

If you think you have symptoms of vaginitis, such as burning or itching, contact your health care provider. Although vaginitis can cause discomfort, it almost always can be treated once the cause has been found.

## **Glossary**

***Antibiotics:*** Drugs that treat infections.

***Candidiasis:*** Also called yeast infection or moniliasis, a type of vaginitis caused by the overgrowth of *Candida* (a fungus normally found in the vagina).

***Diabetes Mellitus:*** A condition in which the levels of sugar in the blood are too high.

***Estrogen:*** A female hormone produced in the ovaries.

***Hormones:*** Substances produced by the body to control the functions of various organs.

***Human Immunodeficiency Virus (HIV):*** A virus that attacks certain cells of the body's immune system and causes acquired immunodeficiency syndrome (AIDS).

***Menopause:*** The time in a woman's life when the ovaries stop functioning; defined as the absence of menstrual periods for 1 year.

***Sexually Transmitted Disease (STD):*** A disease that is spread by sexual contact, including chlamydia, gonorrhea, genital warts, herpes, syphilis, and infection with human immunodeficiency virus (HIV), the cause of acquired immunodeficiency syndrome (AIDS).

***Spermicides:*** Chemicals that inactivate sperm. They come in creams, gels, foams, and suppositories. Some condoms are coated with spermicides.

***Vagina:*** A tube-like structure surrounded by muscles leading from the uterus to the outside of the body.

***Vulva:*** The external female genital area.